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ABSTRACT

The linkage of planning and evaluation in vocational education is a conceptual as well as an operational phenomenon. In an ideal situation, planning and evaluation are not two distinct sets of activities but rather interrelated aspects of a dynamic and inquiring system with the overall mission of reconciling policy design and policy action. However, the degree to which this ideal is approached depends on a number of factors. Examination of the planning/evaluation linkage can be organized around three issues: (1) the nature of knowledge in vocational education planning and the interaction of that type of knowledge with formal versus informal processes; (2) the problems or content of vocational education planning, leading to a proposed problem typology; and (3) unique vocational education organizational and administrative factors in relation to external pressures for change and reform. Questions can be raised relative to each of these three areas of inquiry. The best plans are often not implemented or are substantively changed in the process of implementation, and evaluation findings seem to be ignored or have little effect. (28 references) (KC)

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LINKING PLANNING AND EVALUATION IN VOCATIONAL EDUCATION: ISSUES AND CONCEPTS

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LINKING PLANNING AND EVALUATION IN VOCATIONAL EDUCATION: ISSUES AND CONCEPTS

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INTRODUCTION

Two common themes in recent literature are plans that do not get implemented and evaluation findings that are not used. Much of the literature on planning and evaluation treats these two activities as separate, distinctive functions. This separation of planning and evaluation is evident not only in terms of different research methods but also in terms of different professional communities and often different departments and personnel within an agency.

This apparently counterproductive structure resides within an even larger cycle of policy design/policy implementation. Similar laments are cited in this arena regarding the nonimplementation or distortion of policy intent on the one hand and charges of naive or ill-informed policy design on the other. Lotto (1986) cited instances of such conflict when she revealed discrepancies between expectations and outcomes for vocational education in the policy relevant areas of (1) skills, knowledge, and attitudes; (2) post school education and employment experiences; and (3) generalized social, educational, and economic benefits (p. 44).

Planning and evaluation activities in vocational education have both practical and legislative bases. The formal processes are strongly shaped by legislative requirements and all states have mechanisms in place to comply with federal requirements. The ongoing, practical planning and evaluation needs of states and localities, however, seem to reside at a level subordinate to the process of meeting national regulations (Strickland & Asche, 1987). Emerging requirements for core standards and performance measures may create apparent uniformity among states and levels. The actual utility of these standards and measures in serving ongoing planning and evaluation needs is unknown at this time.

Vocational education has undergone scrutiny from a number of perspectives over the last decade. Changes in federal legislation have redefined aspects of vocational education's mission while at the same time de-emphasizing collection of data to substantiate accomplishment of these priorities. Publications such as *A Nation at Risk* (National Commission on Excellence in Education, 1983), *The Unfinished Agenda* (The National Commission on Secondary Vocational Education, 1984), and reports from the National Assessment of Vocational Education (NAVE) have focused on several areas of policy critical to the future of vocational education. Yet expectations for vocational education,

both at institutional and individual levels, are based on varying philosophies and differing views as to its role in society (Lotto, 1986). Consequently, the task of evaluation and planning has been hard pressed, as Oakes (1986) put it, to move beneath the bottom line and look at the overall program of vocational education.

PURPOSE

The purpose of this paper is to examine critically issues related to the linkage of vocational education planning and evaluation. It is a *concept paper* and attempts to bring together important ideas from several disciplines and intends to provide conceptual guidance for later stages of the National Center for Research in Vocational Education (NCRVE) projects on linking, planning, and evaluation. This paper also serves the important function of providing a concise analysis of concepts that research indicates are critical to combining the power of planning and evaluation to improve vocational education. To serve this latter function, it is directed to state and local level vocational administrators in general and planning and evaluation personnel in particular.

In order to examine linkage issues, this paper assumes that planning and evaluation, *ideally*, is a single process—an ongoing, regular dynamic between two interrelated functions. This assumption implies that planning and evaluation functions have the same overall mission and not simply different but complimentary missions. Moreover, the primary mission of planning-evaluation in this context is reconciling policy design and policy action. These are not radical notions and are often accepted on an intuitive level by practitioners. As is illustrated later, however, a number of factors work against the ideal of a single evaluation/planning dynamic.

The paper is organized around three major topics or themes critical to the issue of linkage between vocational planning and evaluation: (1) the nature of knowledge in vocational education planning and evaluation; (2) the problems (content) of vocational education planning and evaluation; and (3) organizational and administrative factors and response to pressures for change. An attempt is made to discuss both the conceptual and operational aspects of planning and evaluation with emphasis on the development of a conceptual basis for further study and research. The purpose is not to provide the reader

with solutions—rather it is to provide ideas as to how to examine the problem of effective linkage.

DEFINITIONS

There is no shortage of definitions for planning and for evaluation. Some disagreement is found among authors regarding terms or classifications of type, but a general agreement prevails across the many definitions regarding substance. The following definitions are those which have been most useful to the present authors.

Planning

Hudson and Davis (1976) include in their definition of planning the development and statement of goals, determination of policy and program alternatives, assessment of costs and resources, evaluation of outcomes or effects, and the monitoring of allocations, decisions and implementation activity. It is useful to think of planning as involving at least three major functions: (1) goal/purpose setting and modification; (2) systematic determination of policy and program alternatives and setting priorities; and (3) use of appropriate needs, cost, resource, output and outcome data to monitor programs and provide feedback to the planning process on a continuing basis. Asche (1988, pp. 5-7) labeled similar functions in the vocational education context as (1) substantive planning—setting the directions and mission for vocational education, (2) management planning—translating goals into priorities and allocating resources, and (3) operational planning—operationalizing goals and priorities as programs and services and providing feedback. The Hudson and Davis conceptualization and the Asche adaptation of the major functions to vocational education serve to illustrate the fuzziness of the line between traditional purposes of planning and evaluation.

Evaluation

Scriven (1973) provides one of the most concise definitions of evaluation: To determine the worth or merit of whatever is being evaluated. Brophy, Groteleuschen, and

Gooler (Cited in Worthen & Sanders, 1987, p. 6) categorize three major purposes for evaluation: (1) planning procedures, programs, and/or products; (2) improving existing procedures, programs, and/or products; and (3) justifying (or not justifying) existing or planned procedures, programs, and/or products. Most persons agree that evaluation may serve either a *formative* purpose (i.e., to improve a procedure, program or product while it is in operation) or a *summative* purpose (i.e., to judge or value the procedure, program, or product in terms of continuance or discontinuance).

Again, these views of evaluation include functions often ascribed to planning just as certain planning functions might as easily be considered evaluation. Without an informed awareness of these overlaps, the potential for conflict and dysfunction is apparent. This paper deals with making these areas of overlap and mutual support more explicit and with clarifying factors related to effective linking of planning and evaluation.

THE NATURE OF KNOWLEDGE IN VOCATIONAL EDUCATION PLANNING AND EVALUATION

Oakes (1986) stated, "Attempts to understand schooling are circumscribed by decisions we make about what is worth knowing, how we pose the questions we ask and what methods we consider legitimate for finding out" (p. 33). Although there is an abundance of information (knowledge), is the information relevant and if not, why not? To examine the question of "acceptable" knowledge, two types of knowledge are proposed: (1) positivist or scientific knowledge and (2) phenomenological or interpretive knowledge. The positivist view of knowledge separates knowledge providers from users and places a premium on objectivity and quantification. The second or interpretive view of knowledge emphasizes subjective meanings and assumes that all information (regardless of claims of objectivity) is shaped by presuppositions (de Neufville, 1987).

Vocational education has historically depended almost exclusively on quantitative, scientific information in all aspects of official planning and evaluation. Evidence of this fact is provided by the elaborate rational-synoptic planning systems developed for vocational education in the 1970s. Also, one need review only a sample of "State Plans" or accountability reports to understand the importance ascribed to quantifiable data. The planning-evaluation process has been viewed more as a technical exercise than as a moral

and political activity (Hoch, 1984). Vocational education practitioners, however, realize that informal mechanisms are often getting the work done through the less visible use of interpretive knowledge.

The formal processes of vocational education planning and evaluation are reasonably well documented and available for examination. The dependence on positivist knowledge (data) is evident in this documentation. At the operational level, however, the use of interpretive knowledge may be more prominent than is commonly assumed. Vocational personnel are engaged in less formal planning and evaluation activities that extend beyond or parallel formal structures in order to form strategies, choose among alternatives, develop indicators of success, and implement programs.

Information Processing

In order to do all these activities, vocational program managers or administrators constantly engage in different forms of cognitive information processing. The type of information to process and the procedures to be used vary as a function of the program manager's role, professional training, experience, political sensitivity, or organizational commitment. Information processing may be formal or informal depending on the circumstances. In the face of routine tasks, stable environments, clear goals, and routine technology, most information processing gets done formally through established organizational routines (e.g., manuals, communication networks, or professional norms).

Faced with nonroutine tasks, unstable environments, unclear goals, and new technology, however, the nature of information processing follows more informal patterns such as noticing and constructing meaning about intent, analogy, coalition building, or working from belief. To the extent that planning is focused on implementing policy, such action taking, in effect, turns out to be an exercise in reading or translating signals that are sent from the relevant policy actors and policy community (e.g., superiors, professional body, or political authority).

Translating signals entails constructing meaning such that the program manager can make decisions. These decisions must be made by extracting enough clarity of understanding to take action while staying within the perceived bounds of policy intent and

operational reality. This can be viewed as discretionary behavior which one may or may not be authorized to exercise. The primary point to be conveyed here is the idea that reading policy signals is not done by following a universal algorithm or certain prescribed steps of decision making. Vocational program managers follow different strategies depending on the nature of the policy context, their background of experience and training, and even their personal temperament.

> In the context of education policy making, Kutner (1983) has noted that federal signals are transmitted to state and local officials through a variety of sources. They begin to emerge from Congress and executive agencies as part of the political process of influence and negotiation . . . after a bill is enacted into law, signals continue to reflect the administrative decisions made by executive agency officials, and by Congressional appropriations and oversight hearings. (p. 433)

The mixed nature of signals in effect triggers the unique cognitive response styles of the program managers. The interpretation of mixed and often conflicting signals and their reconciliation with local realities are largely accomplished through informal processes.

In the context of the vocational education act, Benson and Hoachlander (1981) have observed that "no state was using a procedure free of technical difficulty, arbitrary judgments, unexplained calculations, questionable interpretations of federal law, or inaccurate or inappropriate data" (p. 428). Under stable conditions, this finding must be considered negative. Under conditions of unclear goals, unstable environments and new technology, however, it provides evidence of what may be necessary discretionary behavior.

The exercise of evaluation at the operational level also entails cognitive choices. Cingranelli, Hofferbert, and Ziegenhagen (1980) note that "evaluators must concern themselves with the tendency for program goals to be changed, reordered, or even eliminated between the formulation and implementation phase or during the process of program implementation" (p. 1229). Weiss (1988a) speaks to similar concerns when she addresses the issue of the ubiquitousness of program politics. Wildavsky (1979) emphasized feasibility as a critical issue that triggers and determines the cognitive operations of program managers. In other words, program managers tend to work from successful actions—solutions that have worked well in the past or solutions that are at hand or are accessible—to guide them in the way they read the signals, influence goal evolution, and decide their implementation strategies.

Under the real and potential existence of various cognitive orientations, the issue of linking planning and evaluation becomes a less straightforward and technical exercise than at first might be assumed. It may happen in many different ways depending on the issues, personalities, knowledge base and contingencies of the situation. For example, one way linkage may happen is through the process of coalition formation in order to get things moving. Weiss (1988b) notes that one of the keys to understanding patterns of evaluation utilization is to recognize that program and policy decisions are the result of multiple actions by multiple actors. Evaluation findings in this way infiltrate the policy subsystem and provide a basis for linkage between planning and evaluation. Another way it may happen is someone taking charge and building commitment for the program by aggressively pursuing it, that is, through charismatic leadership.

Knowledge and Process Questions

Given the potential roles of both positivist and interpretive knowledge and the corresponding observations regarding formal and informal practices of vocational administrators and program developers, several questions are raised regarding our understanding of planning-evaluation linkages:

- Where and under what conditions do positivist (scientific) and interpretive (phenomenological) knowledge predominate in vocational education planning and evaluation?
- How does the predominance of one type of knowledge over the other affect the linking process?
- Given the different knowledge orientations, to what extent are formal and/or informal procedures acceptable and, given that, transferable forms of linkage?

HOW ARE PROBLEMS DETECTED AND INTERPRETED IN VOCATIONAL EDUCATION PLANNING AND EVALUATION?

Planning and evaluation do not exist content-free; one plans and/or evaluates something. This "something" constitutes the content and procedures of vocational education. Much of this content is typically problematic. One problem, for example, might be how to develop and implement plans to carry out the full intent of a program's mission; yet another might be how to justify support for programs with unstable participation rates in the face of diminishing resources. Primary functions of planning and evaluation are to detect, analyze, and work toward the solution of past, present, or potential problems; therefore, the conceptual linking of planning and evaluation occurs within the boundaries of common legitimate problems.

Just as the types of acceptable knowledge may affect the combined power of planning and evaluation, the failure to confront problems or the selective identification or interpretation of problems may constrain effectiveness. Should problems be limited to issues of compliance with federal and state mandates? What makes something a problem and how does vocational education elevate certain information to problem status? Are problems formally addressed through planning and evaluation identified and interpreted independent of the perceptions of clients, practitioners, and bureaucrats? What is fair game for planning and evaluation in vocational education? Two aspects of this issue may be summarized as (1) What kinds of problems are there? and (2) How are the problems sensed or detected and interpreted? Each of these questions has relevance for the content or substance of vocational education planning and evaluation and the ability to link these processes effectively.

What Kinds of Problems Are There?

A problem typology would enable vocational educators to systematically consider the types of problems actually addressed by planning and evaluation procedures. At the most basic level, problems might be considered according to *source*—internal or external. Internal problems are those which are relatively independent of external demands or pressures. Personnel and curricular decisions, purchasing, scheduling, and similar areas are typically internal in nature. It should be noted that current education reforms are

tending to make curricula more subject to external control. External problems are those which are related to external expectations or environmental events which impact on the funding, organization or operation of vocational education. This classification is similar, though not completely parallel, to the notion in the evaluation literature of formative and summative evaluation. Formative evaluation is characterized as that which occurs during the operation of a program and that which is designed to improve the program. Summative, on the other hand, is evaluation designed to assess or value a program in terms of its outcomes or products.

Another view of problems is related to the actual *nature* of the problems—that is, whether they are substantive (strategic) or operational. Substantive problems are those that deal with the mission or goals (the "what") of vocational education. Operational problems are those which tend to emerge from the day-to-day operation and management (the "how") of vocational education. The former has been characterized as doing the right thing while the latter is often viewed as doing things right. The planning literature often deals with two types of planning—strategic and operational/administrative—which parallel this classification of problems.

A third way of classifying problems has been proposed by Dutton and Duncan (1987) under the title of strategic issue diagnosis. They propose two dimensions for issues or problems—*urgency* and *feasibility*. The urgency of a problem and the actual feasibility of its resolution through organizational action tend to shape the responses made by the organization. A problem of low urgency and little feasibility of solution will generally result in no action. Problems of high urgency but low feasibility will tend to result in coping or ousting (i.e., change officers or administrators) responses. Low urgency and high feasibility opens up the possibility of opportunistic responses whereas high urgency and high feasibility problems will tend to elicit organizational reorienting responses.

Finally, one might propose a four-way typology of problems—Source X Nature X Urgency X Feasibility—based on the three approaches discussed so far. This approach would provide a more systematic way of examining the linking of planning and evaluation and its ultimate effectiveness. As a result, one may find a disproportionate allocation of effort or resources to problems deriving from one or more of the dimensions. Are vocational education's planning and evaluation resources devoted primarily to resolving external problems? Are these resources targeted primarily to operational rather than

strategic problems? Is the planning/evaluation agenda set by urgency with little attention being paid to actual feasibility of resolution through organizational means?

How Are Problems Detected and Interpreted?

One aspect of problem sensing or detection is the extent to which the process is ongoing or cyclical. John Dewey (cited in Hoch, 1984) distinguished planned societies from planning societies. In like manner, one could characterize vocational education as being planned or as being a planning field within education. Federal vocational education legislation has consistently required state plans to be produced on a regular cycle and states have replicated that model internally for localities and/or institutional deliverers. Vocational education evaluation has followed suit with cycles paralleling those dictated by the state plan process.

This cyclic nature of planning-evaluation is a natural outcome of legislative funding cycles and is closely related to the need for accountability which may also have had the unintended effect of redefining the purpose of planning and evaluation as demonstrating compliance. It is not clear to what extent the cyclic approach to planning and evaluation dominates nor whether the cyclic style of operation affects the kinds of problems detected and addressed. Relatively short planning-evaluation cycles could tend to restrict the scope of problems addressed more to the internal-operational type than to external-substantive types, an hypothesis not currently addressed in the literature.

A second concern relates closely to the predominance of one type of knowledge over another as discussed earlier. Do problems exist independent of the perceivers? Dery (1986) states that "problems are not objective entities in their own right 'out there' to be detected as such, but are rather the product of imposing certain frames of reference on reality" (p. 4). If one views linking on a conceptual level (as opposed to institutional or organizational), the role of the perceiver is central to problem identification and definition. Wildavsky's (1979) observation concerning tensions between social interaction and intellectual cogitation are relevant. He characterizes this as being "the degree to which we are willing to accept what people think they want or intervene so that they will want what we think they ought to have" (p. 389). The types of problems detected and addressed by vocational planners/evaluators may be shaped not only by the dominant view of the role of

planning-evaluation but also by the perceptions of individuals. Along the same line, problems and resultant forms of linkage also may be shaped by the *approach* to problem solving. This latter point is illustrated by Wildavsky's (1979) policy analyst's view of problem solving. Problem solving, he suggests, is "as much a matter of creating (1) a problem worth solving from a social perspective and (2) capable of being solved with the resources at hand as it is of converging to a solution when given a problem" (p. 388). Does vocational education respond to given (external) problems, particularly under unstable conditions, to the exclusion of identifying problems worth solving as perceived by vocational practitioners?

Other views on problem detection include Deere's (1986) notion of difficulties. Difficulties may exist objectively, but within certain frames of reference (perceptions, values, presuppositions), they are redefined as problems. The argument also can be made that by operationally defining problems (in the positivist/reductionism sense), one can substantively change their content or meaning (Wirth, 1983). Etzioni (1986) has introduced the notion of mixed scanning which argues the need for both broad, long-range views and incremental close-up views. Does the vocational education planning-evaluation process focus too heavily on one type of scanning to the detriment of the other, creating an imbalance between what Etzioni termed pragmatism and operationalization?

Operationally, the identification and interpretation of problems may, as in the earlier case of knowledge-type, function at two levels. First, formal planning and evaluation mechanisms are in place to interpret, develop strategy, implement, and document programs designed to mirror federal and state policy and regulations. These formal procedures, however, do not capture the totality of vocational education. The types of problems detected and interpreted by this formal system is only a subset of the problems sensed and acted upon by more informal mechanisms.

If the initiatives depicted by the formal (legal) mechanism are substantially different from those of concern to program managers at local and state levels, informal procedures and interpretive knowledge may play a more dominant role in interpretation and implementation of policy. One might hypothesize the existence of two more or less separate mechanisms: (1) a formal system, to demonstrate compliance with overt policy; and (2) a more informal system to operate the real system of vocational education. It may be reasonable to assume that under conditions of federal accountability, the bulk of

financial resources will be devoted to the formal system leaving the informal system with little support.

Based on the discussion of the potential content or problems of vocational education planning-evaluation, the following questions are suggested as guides for further investigation:

- How do the kinds of problems currently addressed by vocational education planning and evaluation affect linkage between the two and why?
- What are the implications for planning/evaluation linkages given an imbalance in the suggested typology of problems?
- Do the methods used to interpret and operationalize problems result in substantive changes in their scope or meaning and, if so, how do such changes affect linkages?
- Is there evidence of the operation of two relatively separate systems of planning and evaluation with one being primarily formal and scientific and the other informal and interpretive?

ORGANIZATIONAL AND ADMINISTRATIVE FACTORS AND RESPONSE TO PRESSURES FOR CHANGE

Incremental or transformational change (Kindler, 1979) of vocational education takes place within the larger context of education by virtue of the way in which vocational education is institutionalized within that context. Much of the recurring pressure for change in vocational education has been external in the form of various waves of educational reform.

Educational Reform and Vocational Education

In the early 1900s, education was called upon for its instrumental value in Americanizing immigrants, preparing the nation for an impending war, and "fitting" citizens for their place in a rapidly expanding industrialized society. Vocational education

was seen as having a vital role in transforming the largely academic schools of the day. The math-science crisis following Sputnik shifted the focus to academic excellence and promoted increased emphasis on postsecondary technical education. The resultant social-economic agenda prescribed for education, and specifically for vocational education, in the 1960s and 1970s has been carried forward to the 1980s. Added to this agenda are specific emphases on reindustrialization, basic skills, gender equity, high technology, and excellence.

Each of these waves of reform has carried with it a tension between egalitarian goals and some form of excellence, efficiency, or increased productivity. During the early years of this nation's industrialization and mass influx of immigrants, the tension was between broadening the curriculum to accommodate larger portions of the population in free public schooling (egalitarian) yet preparing portions of that population to meet industrial and agricultural needs (economic and productivity goals). The current tension is similar in that demands for excellence are often interpreted programmatically in ways that run counter to equally powerful demands for compensatory equalization. Programs are judged for excellence and efficiency at the same time that they are designed to extend the democratic ideals of equality and equalization of economic opportunity to all citizens regardless of gender, race, handicapping condition, or disadvantagement.

Vocational education is typically at the intersection of these competing demands and is often viewed as an instrument for bringing about reform. The resultant tension within vocational education is often seen as the argument between education and training, between employability-career development and employment skills development, or as Oakes (1986) has labelled it—educational and noneducational (i.e., labor market and economic) claims for vocational education. As a result, vocational education finds itself in the unique position of being charged to meet local labor market needs and help solve the nation's economic problems while at the same time being evaluated for its services to special populations and to the general education of all eligible students.

Institutional Capacity

Timar and Kirp (1987) have addressed these tensions in an analysis of reform through legislation and suggest that there are serious gaps between the intentions and actual

consequences of implemented reform policies. This is partially attributable to the subjective and value-laden nature of the "taxonomy of excellence" in contrast to the prevailing approaches to public policy which rely on rational and legal norms that are easier to enforce and observe. Such an environment "creates a tension between formal and substantive rationality, between rules and the ends they are intended to serve and between the ends and means of policy" (p. 310). Consequently, as they point out, "recent state reforms to promote excellence tend to be highly prescriptive, leaving few areas of school policy untouched" (p. 309). One result, for example, has been the development of policies to address the needs of certain students, the training of teachers, or the provision of certain curricula, without ever confronting the issue of whether or not the education system, or vocational education in particular, as institutional entities are appropriate vehicles for these policies. Timar and Kirp conclude that "educational reforms that consider the goals of individuals or groups at the expense of institutions can never achieve excellence" (p. 308).

Public vocational education is highly institutionalized at both secondary and postsecondary levels with considerable facility, capital, and personnel commitments and often with extensive community involvement and support (Strickland & Asche, 1987). As indicated, external pressures for change that do not take these factors into account may elicit formalistic or paper compliance responses or the substitution of different objectives more in keeping with past policy or institutional inertia. The role played by vocational education planning and evaluation and the linkages employed in realizing external policy objectives, in providing paper compliance or in deflecting and converting such initiatives is not known. Also, the extent to which internal initiatives and problem sensing-interpretation are shaped by context or institutional arrangements is not apparent.

Strategic-Operational Orientation

How might we approach reform or change from the institutional perspective? To start, we might develop a characteristic profile for institutions or organizations relative to their overall propensity toward strategic or operational behavior. For-profit organizations typically view the external environment with a reasonably clear sense of their internal mission and objectives. Public organizations may be much less clear and specific about their purposes. In the extreme case, public agencies (vocational education?) may not consider strategic behavior appropriate or possible except within strict boundaries as

prescribed by legislation, regulations or historical precedent. The linking of planning and evaluation would likely be viewed differently according to an organization's view of strategic behavior and its sensitivity to external demands.

Ansoff (1987) has developed an umbrella conceptualization of the different theories advanced for strategic behavior of organizations given different environmental settings. He characterizes activity addressed toward internal problems as transactional activity or operations management and that addressed toward external problems as adaptation activity or strategic management. He also cites "Gresham's Law of Planning" which states that if left uncontrolled, the operational activity suppresses the strategic activity.

Four modal types of organizations are proposed by Ansoff: (1) organic, (2) reactive, (3) ad hoc, and (4) systematic. As an example, an organic organization is one in which, unless threatened by a survival crisis, strategic behavior is unmanaged, organic, and serendipitous and determined by sociopolitical forces. At the other end of the continuum is the systematic organization which is a strongly and comprehensively managed organization which tries to anticipate rather than react to future threats and opportunities from the environment.

This model is particularly relevant for analysis of planning-evaluation linkages in vocational education since it takes into account the dynamic nature of an organization's internal configuration (organizational capability) and its interaction with the environmental pressures to which the organization is subjected. The ways in which vocational education creates or reacts to internal and external pressures for incremental and transformational change may be a cause as well as an effect regarding planning and evaluation processes and their linkage.

Vocational Education Policy Design and Implementation

It is important to note that policy design and policy action (implementation) may be interactive. An oversimplification is to state that policies are formed at the federal level and then implemented at the state and local levels which assumes a relatively simple linear relationship between policy intent and policy action. One could hypothesize the opposite—programs at the state and local level, through various rational and political processes, shape

policy at the federal level. It also ignores the very real and different organizational and institutional environments in place both within and across the states. A more adequate representation may be that proposed by Alexander (1985) in which policy implementation is viewed as a continuous, interactive process. This process, as Alexander describes it, has four stages: (1) stimulus, or that which directs attention to a problem, goal, or issue; (2) political mobilization and the development of policy; (3) elaboration of the policy in programs (expressed in regulations, plans, and projects); and (4) actual implementation. The linking of planning and evaluation is as apt to result in new stimuli for policy as in corrective actions for existing programs. Planning and evaluation also may be primary mechanisms by which intent, as expressed in policy, is reconciled with outcomes.

Making generalizations about vocational education policy development and implementation is difficult, partially because of its organizational complexity. Multiple funding levels and sources; different delivery mechanisms and levels; variability in objectives, content, and methods among program areas, communities, and states; and different administrative models from state to state all contribute to this complexity. The central focus of this paper is on issues surrounding the linkage of planning and evaluation; but the ultimate goal of such linkages is a more adequate reconciliation of policy with programs or intent with action. Central to this process is administration—the various mechanisms and actions by which policy gets translated into programs and services.

The Role of Administration

The administration of vocational education is a curious mix of local, state, and federal actors, some with primary allegiance to vocational education, others with more general educational responsibilities and backgrounds. The degree of administrative autonomy enjoyed by vocational education varies widely even within a given state.

The administration of public vocational education has been the subject of extensive debate since prior to the Smith-Hughes Act. Compelling arguments were presented for a separately funded and administered program to exist parallel to public general education and to be controlled by noneducators, based on the German system of the late 1800s. This approach was viewed as undemocratic by many, and arguments were advanced for vocational education as a part of the comprehensive high school, managed by school people

in cooperation with leaders of business and industry. The resulting model, as described in the Smith-Hughes legislation, was a compromise between these two approaches.

Disagreement over the administration and, to some extent, the resultant form of vocational education continues. Benson and Lareau (1982) stated that "as long as the vocational program is controlled by the mainline school administration, the quality of vocational education is not likely to be sufficiently high to serve the interests of employers" (p. 105). This same argument was advanced by David Snedden and Charles Prosser (Wirth, 1980) prior to enactment of Smith-Hughes.

Oakes (1986), on the other hand, argues that social and economic discrimination result from curriculum differentiation (separation of vocational and academic education). This was essentially the position of John Dewey in the early 1900s. The picture is complicated even further by the existence of similar types of training and education programs offered at two levels (secondary and postsecondary) and by programs targeted on specific populations and offered outside the jurisdiction of public school administration through the U.S. Department of Labor.

To some extent, the arguments over how vocational education should be administered are confounded with differing views on the role, content, and mission of vocational education. The relative roles of secondary and postsecondary institutions in the delivery of vocational education services is a more recent addition to the administration/control/mission debate. There is an underlying assumption that the nature of vocational education is determined by the administrative pattern, an assumption only partially supported by historical evidence.

While vocational education policy is formally set and evaluated primarily at the federal and state levels, the actual implementation of policy takes place at state and local levels. States vary in terms of the degree of authority exercised at the state level over funding, curriculum, evaluation, and teachers salaries, particularly in areas that go beyond the requirements of federal legislation. Even within these bounds, however, at the school division level and community college/postsecondary technical school there is considerable variation in the ways formal policies are implemented. The nature and effectiveness of planning and evaluation linkages under different administrative patterns is not known. Knowledge of the roles played by planning and evaluation in linking Alexander's (1985)

four stages of the policy process (stimulus, political mobilization, policy elaboration, and implementation) would be an important step in developing ways to improve the match of policy intent and program outcomes.

Questions raised for further investigation include the following:

- What role does organizational behavior and institutional capacity play in the types of responses made by the planning-evaluation system to external pressures for change?
- Are different organizational/administrative patterns of vocational education associated with differing propensities toward strategic or operational behavior?
- What role might be played by planning and evaluation in linking the four stages of the policy implementation process in vocational education?
- Are different administrative patterns associated with the extent and nature of planning and evaluation linkages in vocational education?
- What are the factors that most/least enable planning and evaluation to improve the institution of vocational education?

SUMMARY

This paper has viewed the linkage of planning and evaluation in vocational education as being a conceptual as well as operational phenomenon. Much of the discussion was based on the ideal assumption that planning and evaluation are in fact not two distinct sets of activities but rather interrelated aspects of a dynamic and inquiring system with the overall mission of reconciling policy design and policy action. Reality, however, indicates that the degree to which this ideal is approached is dependent upon a number of factors.

The examination of linking from this perspective was organized around three issue areas in this paper. First, the nature of knowledge predominate in vocational education planning and evaluation and the interaction of knowledge type with formal versus informal processes were examined. Second, the problems or content of vocational education

planning-evaluation were examined and a problem typology was proposed. Third, selected unique vocational education organizational and administrative factors were examined in relation to primarily external pressures for change and reform.

A series of questions was raised relative to each of the three areas of inquiry. It is not proposed that these questions constitute an exhaustive list; rather, the questions were meant to summarize the issues and point out further areas of inquiry. Readers with different perspectives will no doubt raise additional questions or discount some of those that were proposed. It is expected that these and similar questions will help guide the development of a theoretical model of planning-evaluation linkage which will, in turn, be subjected to testing and revision based both on a survey of state-level practitioners and on a series of case studies of practices in selected states and localities.

The observation of this paper was that the best of plans are often not implemented or are substantively changed in the process of implementation and that evaluation findings seem to be ignored or have little effect. The identification and development of better methods of linkage along the various dimensions of the planning and evaluation process shows promise for enabling vocational educators to bring vocational education policy design and policy implementation into better alignment.

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